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ART UNIT	PAPER NUMBER
2662	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/588,632	MO ET AL.
		Examiner	Art Unit
		Donald L Mills	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*17 June 2004*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 15-37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 15-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>*10/23/01, 11/28/01, 03/26/02, 04/19/02,*</u>
<u>*06/20/02, 08/06/02, 11/13/02 & 04/15/03*</u>

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 15-18 are objected to because of the following informalities:

Claims 15-18 depend upon a canceled claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-3, 5-12, and 15-37 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cheesman et al. (US 6,680,933 B1), hereinafter referred to as Cheesman, in view of Rekhter

et al. (US 6,526,056 B1), hereinafter referred to as Rekhter.

Regarding claim 1, Cheesman discloses a telecommunications switch for switching

protocol data, which comprises:

Receiving connectionless and connection oriented signals from a plurality of source

peripheral network elements at an ingress core network element (Referring to Figure 4, the

switch **100** supporting connection-oriented and connectionless type service, receives signals at a

location between access interfaces and network interfaces for traffic management. See column

8, lines 8-10.)

Determining a signaling type associated with each received signal, the signaling type

comprising connectionless signaling or connection oriented signaling (Referring to Figure 5, the

ingress processor **112** parses each incoming protocol data unit to determine the service to which

it belongs, comprising ATM and IP/MPLS. See column 8, lines 30-33.)

Appending a transport label to each received signal based upon the determination of the

signaling type, each transport label comprising an indication of the signal's signaling type

(Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching

tag comprising the destination port and service-related information. See column 8, lines 42-47.)

Communicating the signals and appended transport labels toward destination peripheral

network elements according to signaling procedures associated with each signal's signaling type

(Referring to Figure 5, egress processor **114** parses the protocol data units received from the

switching fabric **103** to determine the required type of scheduling and scheduling treatment

based on the signal type for output towards the protocol data units destination. See column 8,

lines 62-67.)

Cheesman does not disclose *an interface identifier operable to specify an interface of an*

egress core network element between the ingress core network element processing the signal and

one or more destination peripheral network elements.

Note, the Applicant describes the interface identifier as "information specifying addresses

of interfaces facilitating communication between a core network element 13 and various

peripheral network elements 18-24" (See page 11, lines 16-21; page 18, lines 15-29; page 21,

lines 4-14; and page 31, lines 3-16.) Therefore, the Examiner interprets the *interface identifier* as

information for specifying a path through the network from the core network element to the

destination network element.

Rekhter teaches that the four bytes immediately following the link-level header should be

interpreted as an entry in a "tag stack." The first twenty bits should be interpreted as the tag and

the twenty-fourth, bottom-of-stack-indicator bit S tells whether the packet contains any more tag-

stack entries. The first 20-bit field carries the actual value of the Label which comprises

information needed to forward the packet, such as the next hop ("interface identifier,"

information for specifying a path through the network) and the outgoing data link encapsulation

(See column 8, lines 15-20 and column 36, lines 40-46.)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement tag stack of Rekhter in the system of Cheesman for both connection and

connectionless oriented signals. One of ordinary skill in the art would have been motivated to do

so in order to reduce the data-storage requirements of the network devices for VPN traffic as

taught by Rekhter (See column 5, lines 7-8.)

Regarding claims 2 and 12, the primary reference further teaches *wherein the signaling*

type associated with a particular signal further comprises a combination of connectionless and

connection oriented signaling (Referring to Figure 5, the ingress processor **112** parses each

incoming protocol data unit to determine the service to which it belongs, comprising ATM and

IP/MPLS signaling. See column 8, lines 30-33.)

Regarding claim 3, the primary reference further teaches *wherein at least some of the*

plurality of signals comprise Multi-protocol label switching signals, and wherein at least some of

the plurality of signals comprise Internet Protocol signals (Referring to Figure 5, the ingress

processor **112** parses each incoming protocol data unit to determine the service to which it belongs, comprising IP/MPLS signals. See column 8, lines 30-33.)

Regarding claims 5, 20, and 28, the primary reference further teaches *wherein each transport label comprises:*

A format field operable to identify the signal's signaling type/a label value field containing information useful in processing the associated signal according to its signaling type (Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching tag comprising service-related information and a destination port. See column 8, lines 42-47.)

Regarding claim 6, the primary reference further teaches *wherein at least one signal comprises a connectionless signal and wherein the label value field of that signal's transport label comprises a node identification operable to identify a network element through which the at least one signal will be routed* (Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching tag comprising service-related information and a the destination port, the protocol data unit comprising IP/MPLS traffic. See column 8, lines 42-47.)

Regarding claim 7, the primary reference further teaches *wherein at least one signal comprises a connection oriented signal and wherein the label value field of that signal's transport label comprises a path identifier operable to facilitate construction of a virtual circuit over which the at least one signal will traverse* (Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching tag comprising service-related information and a destination port, the protocol data unit comprising ATM traffic for transmission over a virtual channel per the destination port. See column 8, lines 42-47.)

Regarding claim 8, the primary reference further teaches *wherein at least one of the*

transport labels comprises a plurality of sub-transport labels, each sub-transport label providing

an instruction regarding the associated signal's communication toward one of the destination

peripheral network elements (Referring to Figure 5, ingress processor **112** encapsulates the

protocol data unit with a switching tag comprising the destination port and service-related

information. See column 8, lines 42-47.)

Regarding claims 9, 21, and 29, the primary reference further teaches *wherein the*

plurality of sub-transport labels comprise a stack of sub-transport labels, and wherein the top

sub-transport label identifies a node identification useful in determining a next hop for a

connectionless signal or a path identification useful in determining a virtual circuit for a

connection oriented signal (Referring to Figure 5, ingress processor **112** encapsulates the

protocol data unit with a switching tag comprising the destination port and service-related

information, inherently comprising the node used for determining a next hop for an IP signal and

a virtual circuit for an ATM signal. See column 8, lines 42-47.)

Regarding claims 10, 22, and 30 as explained in the rejection of claims 1, 19, and 27;

Cheesman and Rekhter teach all of claim limitations of claims 1, 19, and 27 (parent claims).

Cheesman does not disclose *wherein the sub-transport label at the bottom of the stack of*

sub-transport labels includes the interface identifier operable to specify the interface of the

egress core network element between the ingress core network element processing the signal and

the one or more destination peripheral network elements.

Note, the Applicant describes the interface identifier as "information specifying addresses

of interfaces facilitating communication between a core network element 13 and various

peripheral network elements 18-24" (See page 11, lines 16-21; page 18, lines 15-29; page 21,

lines 4-14; and page 31, lines 3-16.) Therefore, the Examiner interprets the *interface identifier* as

information for specifying a path through the network from the core network element to the

destination network element.

Rekhter teaches that the four bytes immediately following the link-level header should be

interpreted as an entry in a "tag stack." The first twenty bits should be interpreted as the tag and

the twenty-fourth, bottom-of-stack-indicator bit S tells whether the packet contains any more tag-

stack entries. The first 20-bit field carries the actual value of the Label, which comprises

information needed to forward the packet, such as the next hop ("interface identifier,"

information for specifying a path through the network) and the outgoing data link encapsulation

(See column 8, lines 15-20 and column 36, lines 40-46.)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement tag stack of Rekhter with the Label for forwarding the packet at the

bottom of the tag stack in the system of Cheesman for both connection and connectionless

oriented signals. One of ordinary skill in the art would have been motivated to do so in order to

reduce the data-storage requirements of the network devices for VPN traffic as taught by Rekhter

(See column 5, lines 7-8.) And, placing the forwarding information at the bottom of the stack

would enhance system processing by determining if additional processing is necessary prior to

packet forwarding. In addition, in so doing unexpected results are not produced since the

position can be arbitrarily chosen.

Regarding claim 11, Cheesman discloses a telecommunications switch for switching

protocol data, which comprises:

Receiving connectionless signals and connection oriented signals at a first network

element, each signal including a transport label having a format field identifying a signaling

type associated with the signal, a label value field containing information useful in processing

the signal according to its signaling type (Referring to Figure 5, the egress processor **114** parses

the protocol data units received from the switching fabric **103**, inherently comprising both

connection-oriented and connectionless type packet data units with a switching tag comprising

information of the destination port and service-related information. See column 8, lines 62-64,

32-33, and 42-47.)

A stack of sub-transport labels, each sub-transport label providing an instruction

regarding the associated signal's communication toward one of the destination peripheral

network element, and wherein the top sub-transport label identifies a node identification useful

in determining a next hop for a connectionless signal or a path identification useful in

determining a virtual circuit for a connection oriented signal (Referring to Figures 1 and 5, the

ATM/IP packets, which comprise their respective header, are encapsulated with a header that

contains information from the look-up and forwards the encapsulated PDU to the switching

fabric **16**. See column 5, lines 45-48.)

For each signal, examining the format field of the transport label to determine the

signal's signaling type (Referring to Figure 5, the egress processor **114** parses the protocol data

units received from the switching fabric **103** to determine the required type of scheduling and

queuing treatment based upon the type of traffic and service-related information. See column 8,

lines 62-64.)

For each signal, interpreting the information in the label value field on the transport label according to the signal type (Referring to Figure 5, the egress processor **114** parses the protocol data units received from the switching fabric **103** to determine the required type of scheduling and queuing treatment based upon the type of traffic and destination port. See column 8, lines 62-64.)

For each signal, communicating the signal to another network element using signaling procedures associated with the signal's signaling type (Referring to Figure 6, the egress processor **114** transmits the protocol data unit onto the egress link **130** based upon the type of signal received. See column 9, lines 58-60.)

Cheesman does not disclose *wherein the bottom sub-transport label includes an interface identifier operable to specify an interface of an egress core network element between the ingress core network element processing the signal and the destination peripheral network element.*

Note, the Applicant describes the interface identifier as "information specifying addresses of interfaces facilitating communication between a core network element 13 and various peripheral network elements 18-24" (See page 11, lines 16-21; page 18, lines 15-29; page 21, lines 4-14; and page 31, lines 3-16.) Therefore, the Examiner interprets the *interface identifier* as information for specifying a path through the network from the core network element to the destination network element.

Rekhter teaches that the four bytes immediately following the link-level header should be interpreted as an entry in a "tag stack." The first twenty bits should be interpreted as the tag and the twenty-fourth, bottom-of-stack-indicator bit S tells whether the packet contains any more tag-stack entries. The first 20bit field carries the actual value of the Label which comprises

information needed to forward the packet, such as the next hop and the outgoing data link

encapsulation (See column 8, lines 15-20 and column 36, lines 40-46.)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement the tag stack of Rekhter with the Label for forwarding the packet at the

bottom of the tag stack in the system of Cheesman for both connection and connectionless

oriented signals. One of ordinary skill in the art would have been motivated to do so in order to

reduce the data-storage requirements of the network devices for VPN traffic as taught by Rekhter

(See column 5, lines 7-8.) And, placing the forwarding information at the bottom of the stack

would improve the system by determining if additional processing is necessary prior to packet

forwarding. Additionally, in so doing unexpected results are not produced since the position can

be arbitrarily chosen.

Regarding claims 15, 23, and 31 the primary reference further teaches *examining the top*

sub-transport label to determine that the signal comprises a connectionless signal and

comparing the value in the label value field of the top sub-transport label to a node identification

associated with the first network element (Referring to Figure 5, ingress processor **112**

encapsulates the protocol data unit with a switching tag comprising the destination port and

service-related information, the PDU comprises the node information used for determining a

next hop for an IP signal and a virtual circuit for an ATM signal. See column 8, lines 42-47.)

Regarding claims 16, 24, and 32 the primary reference further teaches *determining that*

the node identification associated with the first network element does not match the value in the

label value field of the transport label and routing the signal toward the network element

associated with the node identification in the label value field of the top sub-transport label

(Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching tag comprising the destination port and service-related information, the PDU comprises the node information used for determining a next hop for an IP signal and a virtual circuit for an ATM signal, the comparison is made in the routing table. See column 8, lines 42-47.)

Regarding claims 17, 25, and 33 the primary reference further teaches *determining that the node identification associated with the first network element matches the value in the label value field of the top sub-transport label; removing the top sub-transport label from the stack of sub-transport labels; and examining the next sub-transport label to determine further processing instructions* (Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching tag comprising the destination port and service-related information, the PDU comprises the node information used for determining a next hop for an IP signal and a virtual circuit for an ATM signal. See column 8, lines 42-47.)

Regarding claims 18, 26, and 34 the primary reference further teaches *examining the top sub-transport label to determine that the signal comprises a connection oriented signal and that the label-value field in the top sub-transport label comprises a path identifier; and using the value in the label value field of the top sub-transport label to at least being establishing a virtual circuit between the first network element and another network element* (Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching tag comprising the destination port and service-related information, the PDU comprises the node information used for determining a next hop for an IP signal and a virtual circuit for an ATM signal. See column 8, lines 42-47.)

Regarding claim 19, Cheesman discloses a telecommunications switch for switching

protocol data, which comprises:

A first core network element comprising an ingress core network element operable to

receive a signal associated with a signaling type from a source peripheral network element, the

signaling type comprising connectionless signaling or connection oriented signaling (Referring

to Figure 4, ingress processor **112** parses each incoming protocol data unit, from connection and

connectionless sources, to determine the service. See column 8, lines 8-10 and 30-31,) *the first*

core network element further operable to append to the received signal a transport label

including an instruction regarding how to process the signal according to the signaling type

(Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit with a switching

tag comprising the destination port and service-related information. See column 8, lines 42-47.)

A second core network element operable to receive the signal with appended transport

label, to examine transport label to determine the signaling type associated with the signal, and

to process the signal according to the associated signaling type (Referring to Figure 5, egress

processor **114** parses the protocol data units received from the switching fabric **103** to determine

the required type of scheduling and scheduling treatment based on the signal type for output

towards the protocol data units destination. See column 8, lines 62-67.)

Cheesman does not disclose *an interface identifier operable to specify an interface of an*

egress core network element between the ingress core network element processing the signal and

one or more destination peripheral network elements.

Note, the Applicant describes the interface identifier in the specification as "information

specifying addresses of interfaces facilitating communication between a core network element 13

and various peripheral network elements 18-24" (See page 11, lines 16-21; page 18, lines 15-29; page 21, lines 4-14; and page 31, lines 3-16.) Therefore, the Examiner interprets the *interface identifier* as information for specifying a path through the network from the core network element to the destination network element.

Rekhter teaches that the four bytes immediately following the link-level header should be interpreted as an entry in a "tag stack." The first twenty bits should be interpreted as the tag and the twenty-fourth, bottom-of-stack-indicator bit S tells whether the packet contains any more tag-stack entries. The first 20bit field carries the actual value of the Label which comprises information needed to forward the packet, such as the next hop ("interface identifier," information for specifying a path through the network) and the outgoing data link encapsulation (See column 8, lines 15-20 and column 36, lines 40-46.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement tag stack of Rekhter in the system of Cheesman for both connection and connectionless oriented signals. One of ordinary skill in the art would have been motivated to do so in order to reduce the data-storage requirements of the network devices for VPN traffic as taught by Rekhter (See column 5, lines 7-8.)

Regarding claim 27, Cheesman discloses a telecommunications switch for switching protocol data, which comprises:

A processor operable to receive a network signal from the first peripheral network element and to determine a signaling type associated with the received network signal (Referring to Figure 4, ingress processor **112** parses each incoming protocol data unit, from connection and connectionless sources, to determine the service. See column 8, lines 8-10 and 30-31,) *the*

processor further operable to generate a transport label including an instruction regarding how

to process the signal according to its signaling type, and to append the transport label to the

network signal based upon the determination of the signaling type to generate a formatted

network signal (Referring to Figure 5, ingress processor **112** encapsulates the protocol data unit

with a switching tag comprising the destination port and service-related information, based upon

the signal type. See column 8, lines 42-47.)

A core interface operable to receive the formatted network signal and to facilitate

communication of the formatted network signal to another core network element for processing

according to the signaling type identified in the transport label (Referring to Figure 5, switching

fabric **103** operates on the internal encapsulation protocol to route protocol data units to their

destination port via the egress processor **114**. See column 8, lines 54-56.)

Cheesman does not disclose *an interface identifier operable to specify an interface of an*

egress core network element between the ingress core network element processing the signal and

one or more destination peripheral network elements.

Note, the Applicant describes the interface identifier in the specification as "information

specifying addresses of interfaces facilitating communication between a core network element 13

and various peripheral network elements 18-24" (See page 11, lines 16-21; page 18, lines 15-29;

page 21, lines 4-14; and page 31, lines 3-16.) Therefore, the Examiner interprets the *interface*

identifier as information for specifying a path through the network from the core network

element to the destination network element.

Rekhter teaches that the four bytes immediately following the link-level header should be

interpreted as an entry in a "tag stack." The first twenty bits should be interpreted as the tag and

the twenty-fourth, bottom-of-stack-indicator bit S tells whether the packet contains any more tag-stack entries. The first 20bit field carries the actual value of the Label which comprises information needed to forward the packet, such as the next hop ("interface identifier," information for specifying a path through the network) and the outgoing data link encapsulation (See column 8, lines 15-20 and column 36, lines 40-46.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement tag stack of Rekhter in the system of Cheesman for both connection and connectionless oriented signals. One of ordinary skill in the art would have been motivated to do so in order to reduce the data-storage requirements of the network devices for VPN traffic as taught by Rekhter (See column 5, lines 7-8.)

Regarding claim 35, Cheesman discloses *a peripheral interface operable to receive the network signal from the first peripheral network element, and to communicate network signals received from core network elements to the second peripheral network element* (Referring to Figure 5, switch **100** comprises access interfaces **102a**, **102b**, and **102c** for reception and transmission flows to and from network interfaces **104a** and **104b**. See column 7, lines 62-65.)

Regarding claim 36 as explained above in the rejection statement of claim 1, Cheesman discloses all of the claim limitations of claim 1 (parent claims.) Cheesman further discloses *receiving the signals and transport labels at the egress core network element* (Referring to Figure 5, egress processor **114** parses the protocol data units received from the switching fabric **103** to determine the required type of scheduling and scheduling treatment based on the switching tag. See column 8, lines 62-67.) Cheesman does not disclose *removing the appended*

transport labels form each signal and communicating each signal to a destination peripheral

network element.

Rekhter teaches PE1 forwards the packet CE1 after removing tag T3 (See column 8, lines

51-52.)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement tag removal of Rekhter in the system of Cheesman. One of ordinary

skill in the art would have been motivated to do so in order to reduce the data-storage

requirements of the network devices for MPLS traffic as taught by Rekhter (See column 5, lines

7-8.)

Regarding claim 37 as explained above in the rejection statement of claim 19, Cheesman

discloses all of the claim limitations of claim 1 (parent claim.) Cheesman does not disclose

wherein the second core network element comprises an egress core network element operable to

remove the appended transport label and communicate the signal to a destination peripheral

network element.

Rekhter teaches PE1 forwards the packet CE1 after removing tag T3 (See column 8, lines

51-52.)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement tag removal of Rekhter in the system of Cheesman. One of ordinary

skill in the art would have been motivated to do so in order to reduce the data-storage

requirements of the network devices for MPLS traffic as taught by Rekhter (See column 5, lines

7-8.)

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheesman et al.

(US 6,680,933 B1), hereinafter referred to as Cheesman, in view of Rekhter et al. (US 6,526,056

B1), hereinafter referred to as Rekhter, further in view of Raj et al. (US 6,628,649 B1),

hereinafter referred to as Raj.

Regarding claim 4 as explained above in the rejection statement of claim 1, Cheesman

discloses all of the claim limitations of claim 1 (parent claim.) Cheesman does not disclose *at*

least some of the plurality of signals comprising multi-protocol label switching signals with

asynchronous transfer mode, Frame Relay, or packet-over-SONET encoding.

Raj teaches a switch control mechanism **201** is a label switch controller (LSC) that

implements MPLS technology using a label distribution protocol such as LDP in conjunction

with a outing protocol such as OSPF to control the flow of data packets in the form of labeled

data portions, such as labeled ATM cells (See column 18, lines 4-9.)

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to implement the labeled ATM cells of Raj in the system of Cheesman. One of

ordinary skill in the art would have been motivated to do so in order to enhance the types of

services supported to comprise labeled ATM cells.

Response to Arguments

6.   Applicant's arguments with respect to claims 1-12 and 15-37 have been considered but

are moot in view of the new ground(s) of rejection.

Rejection Under 35 USC § 103

On page 16 of the remarks, regarding claim 11, Applicant argues that the examiner's

conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized

that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight

reasoning. But so long as it takes into account only knowledge which was within the level of

ordinary skill at the time the claimed invention was made, and does not include knowledge

gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re*

McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references,

the examiner recognizes that obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, one of ordinary skill in the art would have been motivated to do so in order to reduce

the data-storage requirements of the network devices for VPN traffic as taught by Rekhter (See

column 5, lines 7-8.). Since both Cheesman and Rekhter are drawn to VPNs and queue

management, the combination is both logical and appropriate.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
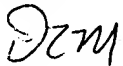
final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Donald L Mills whose telephone number is 571-272-3094. The

examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the

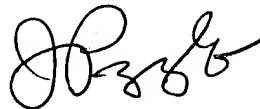organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

February 2, 2005

JOHN PEZZLO
PRIMARY EXAMINER